

ABSTRACT

Three Essays on Indian Equity Options Market

Abhishek Kumar., FPM05/01-F

“Are ‘options’ performative?” has incited much interest but also some puzzlement and considerable confusion among researchers. The purpose of this thesis is to examine from the focal point of performativity the economic significance of options with respect to the Indian market. Each state is critical in the economy in the sense that all of the states must be spanned (by contingent claims) to attain full Pareto efficiency (Ross, 1976). A sufficient condition for this to be true is that for each state there is some individual who values wealth in that state (and is not satiated) and the system should have ample opportunities to trade and price various kinds of risks (Malkiel, & Fama, 1970).

The possibility of writing option contracts opens up new spanning opportunities. As there are only a finite number of marketed capital assets, stocks, bonds; which are referred as ‘primitives’, there can be infinite number of options or derivative that the primitives may generate. Therefore, to attain efficiency in competitive equilibrium in the absence of complete markets, simple options have considerable power to accomplish that (Ross, 1976). Also, options are associated with greater information production, lower transaction costs, greater financial leverage, an absence of short-sale constraints, and possibility to bet on volatility only (Back, 1993; Mayhew, Sarin, & Shastri, 1995).

Understanding the role played by option strategies becomes very important as evidence suggests that they are used both by traders who possess non-public information and by uninformed speculators who wish to speculate on the future direction or volatility of an asset (Fahlenbrach & Sandas, 2010). The question that rises up is, “considering explicitly the impact of transactions and set-up costs of options, are they a viable solution for creating equilibrium and efficiency in the market?” This possibility is the focus of this thesis and is grounded on three essays on the study and use of options in the Indian market.

- A. The first essay is based on linkages between the options and stock market, which would answer the fundamental question as to whether options trading volume improve the informational efficiency of the underlying equity prices and affect the stock price volatility. We propose that availability of options trading is likely to induce investors to uncover better firm-specific information for trading during the earning announcements.
- B. The second essay is based on ‘does’, ‘how’ and ‘why’ informed trading happens in the options market. The process of discovering the true price is collectively known as price discovery and to maintain that is the most important function of a security exchange, which will be analysed in this essay.
- C. The third essay is based on the analysis of options strategies and the contribution of this study to construct indices for eight option trading strategies. It would be examined by the fair game notion of efficiency, that is, the ability or inability of any trader to consistently generate an above-normal average rate of return in the bearish and bullish markets. If the evidence suggests that the market is inefficient, the implication is that above-normal profit opportunities exist for at least some traders.